PRODUCTION OF METAL BY REDUCTION
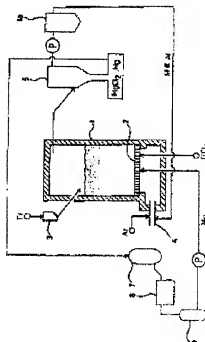
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Abstract of **JP3150326**

PURPOSE:To stick and grow continuously a formed metal on the surface of metallic grains with high efficiency by blowing respective gaseous matters of metal halide and reducing agent and a heated inert gas from the lower part into the grains to be formed charged into a reactor and controlling reaction temp. and fluidizing reaction pressure.
CONSTITUTION:Fine-grained metallic Ti grains (about 0.2-2mm) are continuously charged via a hopper 3 onto a dispersion plate 2 in the bottom of a reactor 1, and respective vapors of TiCl4 and Mg are injected into the upper part of the dispersion plate 2 from the lower part of the dispersion plate 2. Further, Ar gas heated by means of a plasma heater 4 is blown into the lower part of the dispersion plate 2 from the side part, by which a fluidized layer consisting of the metallic Ti grains, the inert gas, and the respective vapors of TiCl and Mg is formed in the upper part of the dispersion plate 2. At this time, fluidizing reaction pressure and reaction temp. in the reactor 1 are regulated to atmospheric pressure and about 1250 deg.C, respectively, and metallic Ti formed on the surface of the metallic Ti grains by means of reducing reaction is allowed to adhere to the surface to grow the metallic Ti grains. By this method, the structure of the reactor can be simplified and metallic Ti can be efficiently produced by easy operations.